

TRENDS AND BIASES IN UNIVERSITY ENTRANTS: MONASH 1970-1975

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1. Introduction

In Victoria (throughout this article we refer only to Victoria) each year a greater percentage of the secondary school intake is staying on to complete six years of secondary school. For example, between 1962 and 1972 the percentage of first form students remaining till sixth form has risen from 19 percent to 33 percent. This has been accompanied by a rising egalitarianism in secondary schools, with the secondary school population becoming more representative of the general population. The percentage share of the sixth form enrolments in government schools, traditionally the sector most open to socially and economically disadvantaged groups, has increased from 49 percent in 1962 to 58 percent in 1972. At the same time the retention rate of students from first till sixth form in government schools has increased from 13 percent in 1962 to 25 percent in 1972. Another obvious area in which the secondary school population has become more like the population as a whole is in the increased percentage of girls staying on at school. The percentage of girls enrolled in sixth form has risen from 38 percent in 1962 to 47 percent in 1972. (Data are derived from annual bulletins — *Statistics of Victoria: primary and secondary education*. Australian Bureau of Statistics: Victorian Office).

It seems reasonable to expect changes in the sixth form population to be mirrored in university intakes and so to expect similar trends towards increased participation in tertiary education by previously "disadvantaged" groups. The few studies which have attempted to map the relationship between the changing patterns of sixth form representation and the socio-educational composition of Australian university intakes have indicated that such increased participation by disadvantaged groups has not occurred. Fensham (1970) examined changes in the sixth form population in the light of entrants to the University of Melbourne over the sixties and concluded:

...the steady continuation of extended secondary education through the 1960's gave promise that further improvement (in widening the franchise of university entry) would follow. However, there now seems to be no escape from the conclusion that after ten years of quotas for university entry in Victoria, this further improvement has not taken place. Restricted university entry has erected barriers which have prevented the changes at secondary level being reflected at university.

(p.166)

Lee Dow *et al.* (1972) examining some characteristics of entrants to the University of Melbourne 1969-1970, a slightly later study than Fensham's, similarly concluded:

Despite the growth in enrolments in the final secondary school year and the increases in the numbers who obtained tertiary education in Victoria during the 1960's, the main finding of this survey is that the social composition of students entering the University of Melbourne has hardly altered.

(p. 95)

In an article comparing entrants to Monash and Melbourne Universities over the years 1970-1971, Smurthwaite (1974) observed few significant differences between the universities — for example, in family background measured by father's occupation, locality and type of school from which students came and the percentage of girls entering each university.

There has been some recognition in academic and governmental circles that breaking the barrier between completion of secondary school and entrance to university will require compensatory measures. Perhaps the most notable step taken in this direction was the attempt to alleviate financial difficulty as a barrier to university entrance, by the abolition of fees under the Labor Government. Anderson (1976) has argued from data based on an Australia wide survey of tertiary institutions that fee abolition has increased the opportunity of certain groups in the community to take up tertiary education. Myers (1976) at La Trobe University considers fee abolition has allowed many mature age students, particularly women, to take up university studies.

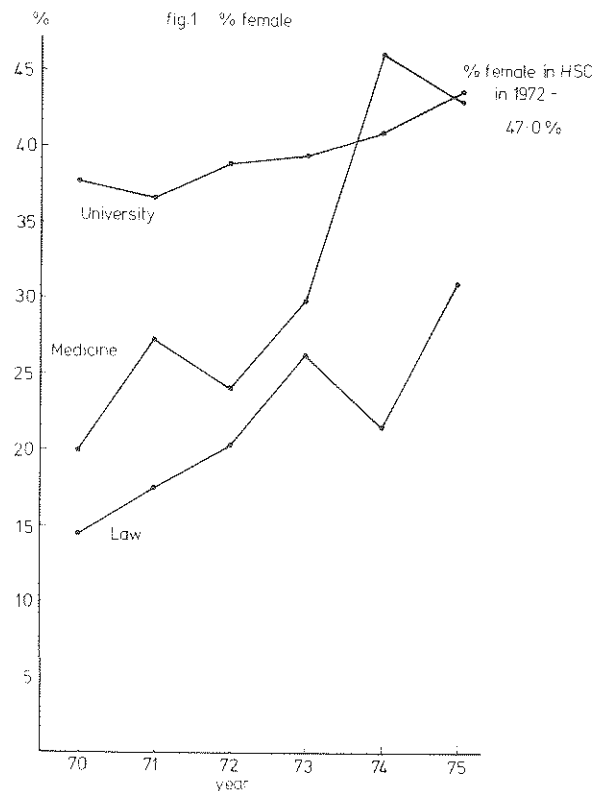
Quite apart from concern to enhance the opportunity of disadvantaged students at sixth form level to enter university, there has been recognition in some quarters that many able students are lost to universities earlier in the secondary school system. In Victoria, Monash and La Trobe Universities have acknowledged in a small way a commitment to equality of opportunity by allocating a small percentage of places each year for disadvantaged and early school leavers.

The purpose of this article is to present selected data showing possible trends and biases in the student population at Monash University over the period 1970-1975 which may indicate whether changes in

public policy and in the pool from which students are drawn are being reflected in the composition of student intakes at Monash. By a bias we mean a distinctly higher or lower percentage representation of a category than in the population at large. Where relevant, figures from the Victorian office of the Australian Bureau of Statistics have been included for comparison.

The data is derived from a continuing survey conducted by the Higher Education Advisory and Research Unit at Monash and has been collected about the newly enrolling student population since 1969. The data concerns the socio-educational background of students. This annual audit of new students is carried out by means of a questionnaire handed out during the enrolment procedure. Apart from the initial year (1969) a response rate of 80 percent and better has been consistently obtained.

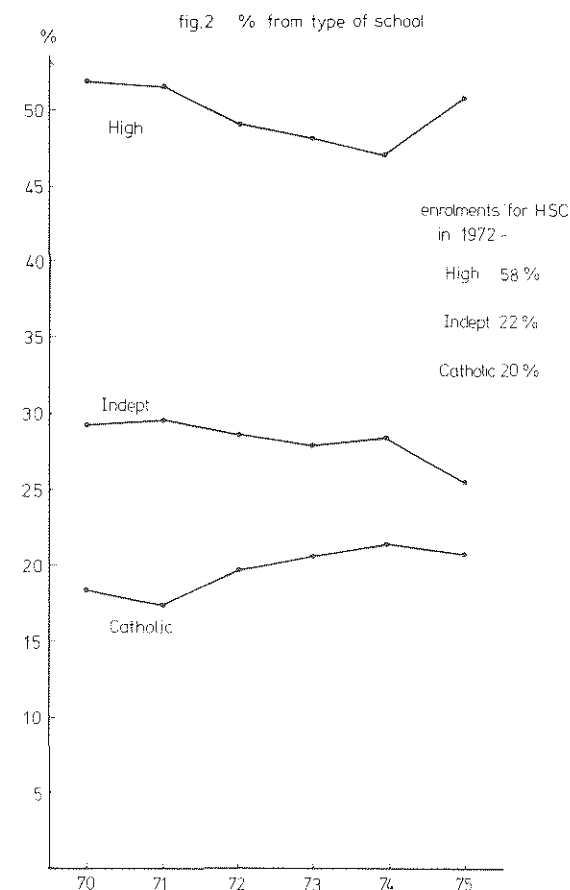
Of course the Monash data is not necessarily representative of the whole tertiary sector. Its importance derives not from its representativeness, but from its long term nature. Observation of changes in the characteristics of tertiary entrants, and inferences about the causes of such changes can be made with much more confidence if data is available over a period of years rather than one or two years.



2. Results

(a) Sex

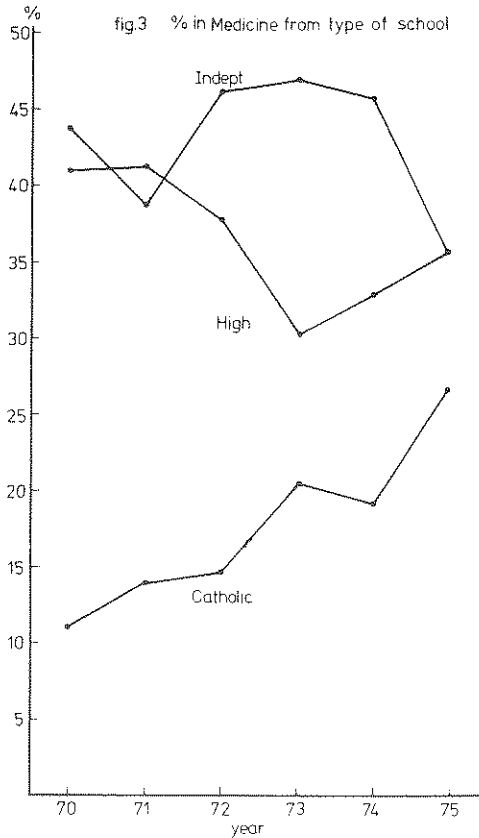
Figure 1 shows the trend that the percentage of females in the student intake is increasing. This is not marked in all faculties, as in Engineering the percentage remains small, while in Arts it remains high. The faculties of Medicine and Law, however, show the most dramatic changes. In Medicine this is most likely due to changes in the selection procedure for Medicine that have occurred during the period shown (1973-4). These comprise the compulsory inclusion of English and allowing only one Mathematics subject in the score on which selection is based. In Law the rise in the percentage of females may be due more to the greater acceptance now of women in the profession, so that for a female to choose to study Law is no longer regarded as challenging traditions. The percentage of females entering university still remains less than the percentage enrolled for HSC, which is itself increasing slightly. This can be explained partly by the greater numbers of females enrolling at teachers colleges.



(b) Type of School

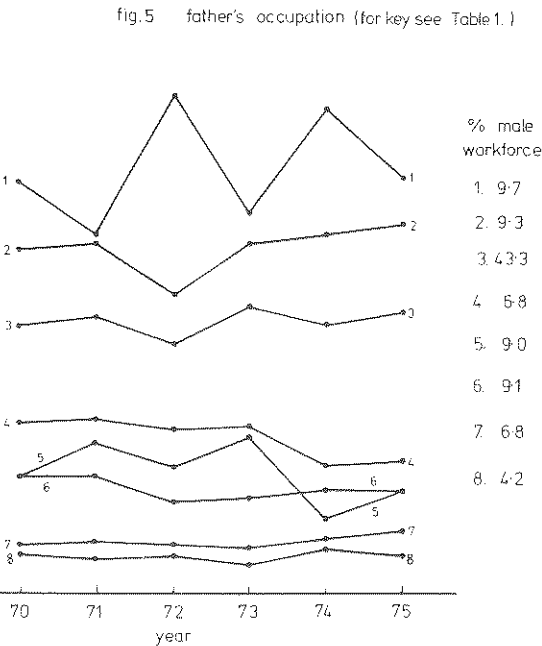
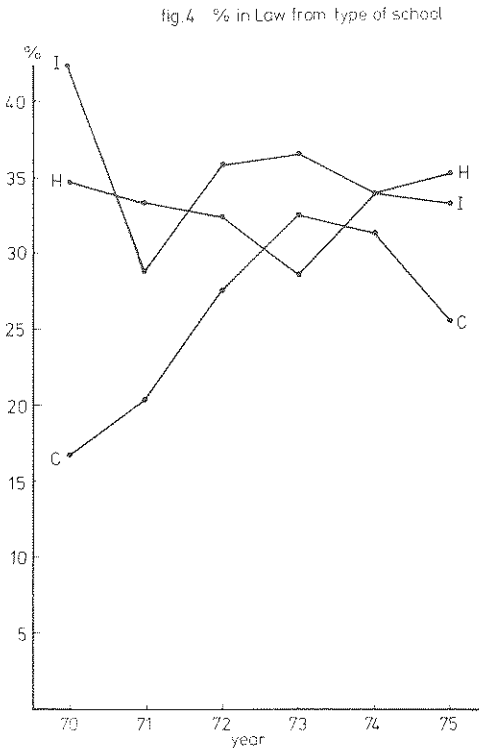
Figure 2 shows the type of school where students have received most of their secondary education. As expected there is a bias towards students from independent schools although this is decreasing.

A more marked bias in favour of independent schools occurs in the faculties of Medicine and Law, and this is shown in Figures 3 and 4. These two are traditionally high-status faculties. It is interesting to note that especially in Medicine, entrants from Catholic schools are getting much improved representation. For comparison the percentages of HSC enrolments at the three types of schools in 1972 are tabulated.



(c) Father's Occupation

Figure 5 shows another expected bias — that towards students whose father's occupations are of higher status. Occupations are categorized according to those used by the Australian Bureau of Statistics, and comparative figures for Victoria from the 1971 Census are shown in Table 1. The most marked bias is that toward the Professional category. The clearest under-representation is that of the category of craftsmen/labourers, etc.



No trends appear in this graph so it appears that fee abolition alone measured in this way has not, at least in the short term, altered the biases. There is a relationship between father's occupation and the type of school attended, so that a bias because of one factor may be the cause of a bias in the other factor. For this reason Table 1 is presented showing the relationship between father's occupation and the type of school for students entering Monash in 1975.

TABLE 1
Relation between "father's occupation" and "type of school" (1975).
The figures give the numbers in each of the cells as a percentage of the row (i.e. the type of father's occupation) and as a percentage of the column (i.e. of the type of school)*

row % (column%)	High	Catholic	Independent	Total	% male workforce
1. Professional technical and related workers	39.7 (21.4)	19.1 (25.4)	39.0 (40.1)	(27.1)	(9.7)
2. Administrative, executive and managerial workers	39.2 (18.8)	18.7 (22.2)	40.3 (37.0)	(24.2)	(9.3)
3. Craftsmen, production- process workers and labourers	67.2 (24.7)	21.2 (19.2)	6.7 (4.7)	(18.6)	(43.3)
4. Sales workers	52.5 (9.1)	19.3 (8.2)	26.7 (8.8)	(8.7)	(6.8)
5. Clerical workers	55.9 (7.7)	29.8 (10.1)	13.0 (3.4)	(6.9)	(9.0)
6. Farmers, fishermen, hunters and related workers	61.3 (8.6)	22.7 (7.8)	13.5 (3.6)	(7.0)	(9.1)
7. Transport and communications workers	73.1 (5.8)	17.2 (3.4)	6.3 (1.0)	(4.0)	(6.8)
8. Service, sport and recreation workers	57.1 (2.7)	26.8 (3.2)	7.1 (0.7)	(2.4)	(4.2)
Total	50.5	20.4	26.4		
1972 HSC	58	20	22		

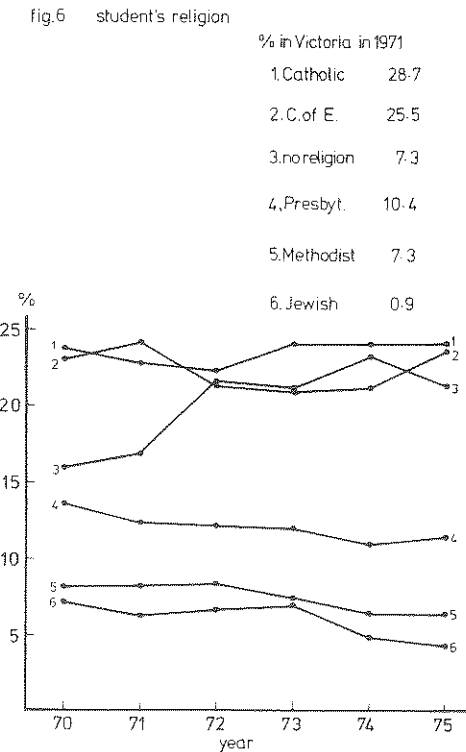
* In this Table and throughout the article some classifications in which the numbers are very small have been omitted.

This table can be read to see the distribution of father's occupation for students from each type of school or for all pooled together, or for the distribution of type of school for each of the father's occupation categories. For instance, it may be noted that only 4.7% of students from independent schools have fathers in the craftsmen/labourers category, or that 39.7% of students whose fathers are in the professional category went to high schools.

(d) Religion

With respect to students' religion (Figure 6) the clearest trend is that the percentage of students claiming no religious affiliation is increasing. This

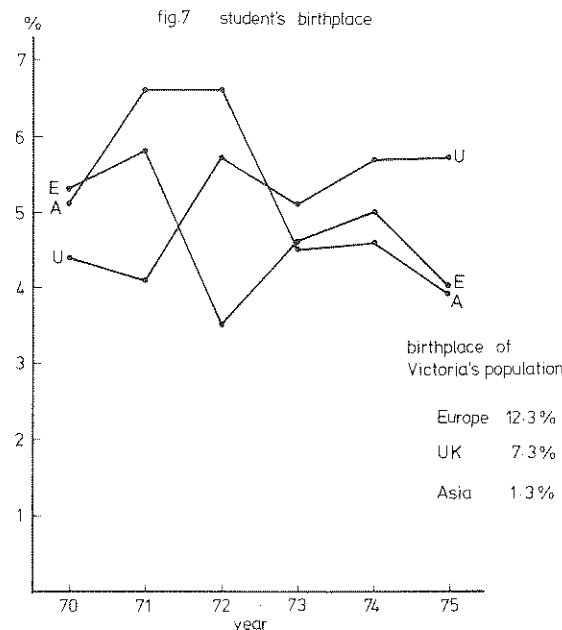
may simply be a reflection of changes in social values and so the greater social acceptability of claiming 'no religion'. The nearly perfect correspondence between increase in Church of England and decrease in the 'no religion' category (and vice versa) supports this explanation. It should be noted that the Census figures for religion for Victoria are for the entire population and that the distribution of religions among HSC students may be very different. For instance, it would be expected that the percentage of Higher School Certificate students claiming no religion is greater than the 7.3% figure for Victoria as a whole. It is clear, also, that Jewish students are over-represented at Monash although their percentage is declining.



(e) Country of Birth

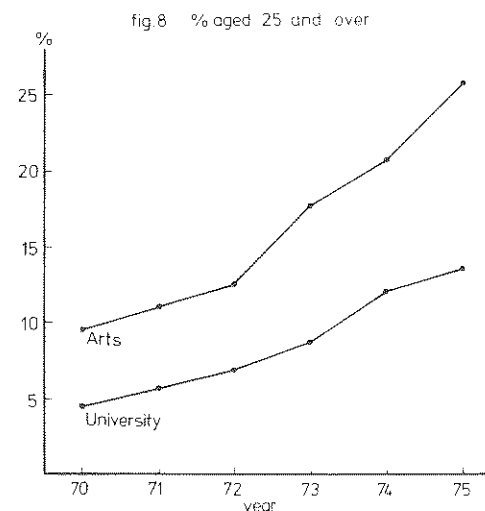
It is difficult to make meaningful comparisons between figures for student's country of birth and any other statistics (Figure 7). This is because the age distribution of migrants is different from the general population. Also, children of a different ethnic background may be born in Australia, so that migrant families may appear less well represented than they in fact are. The figures for the percentages born overseas must be considered in this light. Most Asian-born students are in Australia for study only,

so naturally the percentage of Asian students is higher than the percentage of Asians in the general population. Their numbers are declining, however, but whether this is due to university or government policy, or other factors is not clear.



(f) Age

A clear trend from 1970 on is the rise in the percentage of new students aged 25 and over (figure 8). This is not distributed over the whole university but is largely in the Arts faculty. The trend cannot continue at the same rate for much longer, at least in the Arts faculty, and the changing age distribution of



new students especially in some other faculties will be interesting to monitor. It will also be important to determine the reasons for attendance of these mature students and their expectations. If mature students are to become a significant component of the student body, their different values, expectations, maturity, etc. will have important implications for future curricula in tertiary education.

3. Some Conclusions

These results show that there continues to be considerable incidence of over-representation and under-representation of some groups in the community in the student intake at Monash University. For some groups (in particular females and mature students) there is evidence of a trend towards more equitable representation. On the basis of this data, it would be difficult to attribute these changes to the abolition of fees. The trends existed before the time of fee abolition. This emphasises the need for longitudinal data for this type of analysis. For example if one only had the 1974-1975 data for the increase in mature age students, it would be very easy to make the simplistic causal explanation that the increases are due to fee abolition. In fact, as Figure 8 shows, this trend has existed since 1970.

On the other hand, these results show no evidence of change in participation rates by groups that would be expected to be influenced by fee abolition. For example the children of craftsmen/labourers remain significantly under-represented while the children of professional and executive parents remain significantly over-represented.

A possible explanation for this is that for Monash (and perhaps for tertiary institutions like Monash) biases inherent in the selection procedures are more important barriers to some community groups than financial barriers. If this is so, then if we do wish to widen the tertiary franchise we will need to adjust the selection procedure (for example, along the lines suggested by Fensham (1970)) in addition to the removal of fees. The cost of this in terms of lowering of standards is likely to be negligible (see West and Slamowicz (1976)).

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UNIVERSITY COURSES — FIXED OR ADAPTIVE?

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The Growth of Higher Education

Of the 1,500,000 people in the 17-22 year age group approximately 10 %, some 150,000, are now enrolled for University undergraduate courses, either full-time or part-time. The demand for University places began to increase strongly in the 1950's. The main causes, in Australia as elsewhere, of this greater public appetite for higher education were the increase in knowledge, especially in scientific knowledge, rising educational standards and rising job qualifications; the high birth rates of the post war years; and above all, increases in family finances which enabled the period of education to be extended. Other factors, peculiar to Australia, have been a high immigration rate and the training of many Asian students.

Australian egalitarianism has insisted that all qualified applicants should have the chance of going to a University if they wish. But in spite of the foundation of new Universities, enrolments expanded to such an extent that quotas had to be introduced in some Universities in 1960. But many Faculties continued to admit all qualified applicants. As a result of this fairly free entry, failure rates in the first year at Universities have always been high, sometimes of the order of 40-50%.

The increase of enrolments has been greatest in Arts-type Faculties, which do not demand a high standard of technical preparation. This imbalance is in line with world trends, and results from the more exacting and laborious requirements in Science and Technology.**

Observers of the tertiary scene have thought that the larger Metropolitan Universities have had to attempt too many tasks, and that they have been able to do few of them well. They train large undergraduate classes (some first year classes are over a thousand strong), and as well as carrying on a tradition of knowledge and scholarship, they give professional training in law, medicine, engineering, technology and business. They also offer part-time degree courses on a unit system to trainees from industry, commerce and the Public Service. They offer postgraduate training and they undertake fundamental research. In addition they serve as cultural centres and forums for discussion. These diverse tasks extend the Universities' resources, and in some localities there is still a dearth of alternative or supporting institutions.

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**Currently there are signs of a swing back to the Sciences in British Universities.

In 1964 the Martin Committee thought that many students attempted University courses who would have been better provided for 'in institutions offering courses of different orientation, and less exacting academically'. The Committee report reiterates that (a) the general run of pass-degree students are not well catered for in many University departments. (b) University courses are too abstract and theoretical to meet the day to day demand of industry and commerce.

It does seem to be true that when institutions are upgraded to University status their courses become too difficult for many middling students; and since they tend to be taught by research-oriented Ph.D's., their content can become remote from the every-day world of industry, commerce and agriculture. Therefore their middling students struggle through theoretical courses that they do not fully understand, while their cleverer students aspire to do higher teaching or research themselves, and are often prepared to migrate from their native shores rather than take on the necessary but unexciting jobs which do not meet their intellectual aspirations.

As a result of such considerations, the Commonwealth Advisory Committee on Advanced Education recommended, in 1966, financial support for new tertiary institutions — the Colleges of Advanced Education. And at that time it was the Government's intention that, by 1975, as many tertiary students would be enrolled in the non-University sector as in the Universities. But these intentions have not yet been realised, and C.A. E. enrolments are still only about half of the University enrolments.

Meanwhile, although the size of the 17-22 age group will level out in the coming years, the proportions of students staying on at school to the sixth form is likely to increase. (In N.S.W. the holding power of Government schools in 1973 was estimated at 34% for boys and 30% for girls). And thus the Chairman of the Universities Commission* expects that demand for University places is still likely to increase at between 3-6% per year in the foreseeable future. At the same time, intake is to be pegged at the 1976 level. Universities will therefore be forced, yet again, to be more selective in their admissions, — although now the C.A.E.'s will provide an acceptable, and perhaps for many a more functional alternative to the University.

Between 1951 and 1961 the minimum time graduation rate for full-time students changed very little —

*Professor Peter Karmel reported in the *Australian* 7th July, 1976.